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ABSTRACT

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Theory Based Approaches to Learning Implications for Adult Educators

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Abstract

This paper presents a codification of theory based approaches that are applicable to adult learning situations and lists some general guidelines that can be used when selecting a particular approach or theory as a basis for planning instruction. Adult education's emphasis on practicality and the realtionship between theory and practice is discussed in the first part of the paper. Section two presents theory based approaches to teaching and learning in terms of those developed for youth and applied or applicable to adults and those that were developed specifically for adults. The last section presents some general guidelines for choosing an approach for teaching or planning instruction for adults.

Theory Based Approaches to Learning: Implications for Adult Educators

Adult education as a professional field of practice is still in its infancy compared to other more developed fields of education. Formal education has been primarily aimed at the youth of a culture. Educators have assumed that the major learning which an individual acquires will take place in his/her youth, and that the learning acquired in youth will form the foundation for subsequent adult learning. More recently educators have advocated the need for lifelong learning. Their position is that learning is not reserved for an individual's youth but rather that it takes place throughout a person's life and therefore society should adjust its expectations in view of that reality. However little is really known about teaching adults. Most of what is known about adults as learners is some general descriptions related to their motivations, learning environments, and the stages of development which have been used to differentiate them from their younger counterparts. If adult education as a professional field is to mature beyond its present status and make a contribution to a long life learning society, it is necessary to go beyond merely describing the adult as a learner.

Adult educators need to be concerned about developing researched based models of teaching and learning for adults and applying those that have been developed in other fields. Those theoried or researched based approaches

Factors Affecting Choice of an Approach to Learning	Approaches to Educational Programming				Learning Theories		
	problem solving	setting objectives	change theory	group dynamics	Behaviorism	Cognitivism	Humanism
Purpose of the learning	to solve problems through if of experience	develop a procedure for achieving objectives	effecting change in a social situation	improve human relations	acquiring content	problem solving and or acquire content	self-knowledge /actualization
Role of the Learner/Client	identify problem and test solutions	achieve specified objectives	identifying factors that exhibit and reinforce change	learning to work with others	master prescribed information	increase cognitive skills	increase self knowledge
Role of Teacher/ Agent	help to identify problem and and solution	identify objectives, activities to reach objectives	use technical expertise and human interaction to effect change	developing and utilizing group processes	directive; develop and maintain stimlus control	supportive; design instruction related to cognitive skills to be developed	nondirective; facilitator
Social System	low in external structure	structure may vary from high to low	structure may vary from high to low	moderate structure	highly structured	high to moderate structure in the learning environment	very low external structure
Support Activities	use of environment and experience	use of resources relevant to objectives	use of factors that exhibit and reinforce change, use of many resources related to factors	use of group techniques	development of highly refined stimulus control instructional materials	development of organized material	use of many resources; determined by learner

Figure 1. Approaches to Learning and Factors affecting their choice.

that are presently used and those that are applicable should be codified for use by practitioners. While adults learn many kinds of subjects, knowledges and skills through their own resources, there are other subjects, skills, and knowledges that do not lend themselves to independent inquiry. There are also many adults who do not learn independently regardless of the subject and who must rely on a teacher and or institutional involvement for their learning activities. For this group an "agent" or one person who is the intermediary between the subject matter to be learned and the learner is necessary. It is to this agent or intermediary and those who prepare them for that role that this paper is directed. The purpose of this paper is to present a codification and to list factors that should be considered when choosing a theory based approach for adults in learning environments involving an agent or intermediary.

Background

The adult education field has its origins in practical applications to problems encountered in the everyday process of adult life. This is illustrated by Jensen (1962) who says that adult education had developed as a unique body of knowledge by two procedures: (1) experience gained from coping with problems of practice and (2) knowledge developed by other disciplines which has been borrowed and reformulated for use in adult education. This practitioner orientation is further illustrated by Krietlow (1970) who stated that adult education "is a field of study developing its theory and rationale in response to today's social setting, [and] it would be

doomed if it did not take advantage of its concerned parent institutions and those disciplines to which it is related" (p.147).

Because of the newness of the field of adult education and its practically based evolution, the field has not yet developed a theory base that is uniquely its own. Krietlow (1960) writes that adult education research for the past two decades might be identified as the age of description. In 1970 Krietlow indicated that the picture had begun to change somewhat; he stated that both the quantity and quality of research in adult education was increasing and that as a field, it was beginning "to have it's own identity" (p.146). In numerous reposrts concerning both the status of the field and the need for further research, frequent reference was made to the need for the instructional needs of adults as learners (Krietlow, 1960) and the need for the development of methods of teaching adults (Krietlow, 1970).

Krietlow (1960) states that "it is often assumed that there is no difference in the use and effectiveness of methods for various age groups" (p.113). Such an assumption may help to explain why there is a paucity of research concerning theory based approached to adult learning situations. Another reason is perhaps that adult learners do not tend to exhibit a set of homogenous characteristics as do youthful learners at various ages and stages of development. While much has been written about characteristics of adults as learners, it is generally agreed that there is wide variation among individuals of the same age and background as well as among adults of

of different age groups. If adult education is to mature beyond the age of description and to arrive at solutions to problems that can be used be teachers and administrators in the field, it is necessary to be aware of those research or theory based approaches and to know what can and cannot be expected from their use.

Because of the adult educator's concern with practicality, frequently they are indifferent to theoretical or research based approaches to learning. This is particularly true in instances where teachers are faced with the task of teaching students whose needs are immediate in terms of application to real life situations based on real life needs. However, the usefullness of theory based approaches to learning is not restricted to mastery of subject matter. They can also contribute to the problem solving type of learning with which much of adult education concerned. Rather than inhibiting the practicality of the learning situation, theory based approaches may contribute to it. The issue then becomes one of benefiting from conceptual frameworks provided by theory rather than being burdened by these conceptual obligations.

Learning Theory and Instructional Practice

The relationship between theory based approaches and instructional practice is not always clear. It is not suggested that theory based approaches are the only useful basis for instructional strategies. Many intuitive or experience based approaches to instruction are as effective as those derived from theory. Smith (1973) says that neither the theorist nor the practitioner is in a position to prove the other wrong. The

theorist suggests why some methods work better than others but they are not in a position to say that a method that is effective is wrong. "On the other hand educators cannot argue against theory on the basis of what their practice is. All to often educators get results for reasons they do not expect" (p.6). Even though students frequently learn in spite of the lack of theory based approaches, such as Smith suggests, learning often occurs for reasons other than those intended by the teacher.

Many teachers make no conscious effort to integrate their particular teaching strategies with any specific assumptions about how people learn. Often they teach using methods they have observed or that they experienced as learners themselves. Furthermore teachers frequently regard theory as academic nonsense with no practical value. When teachers so not give conscious attention to the conceptual framework from which their instructional planning derives, they place both themselves and their students at a disadvantage.

Without a conceptual framework for planning instruction, the teacher will be unable to predict what strategies will be successful in a given learning situation and which will not. He/she will be unaware of the behavior involved in new learning situations, the conditions required to bring about those behaviors, and the possible alternative strategies that are available for a particluar situation. Furthermore the evaluation of the learning is likely to be capricious and the results attributed to factors that were unrelated to the outcomes.

There are also potential disadvantages to students who are involved with learning experiences that are planned without attention to theoretical conceptions of learning. The students may experience frustration because of poorly planned instruction. This frustration may lead students to believe that certain learning experiences are beyond their grasp and eventually their self concept as a learner may suffer. As a result the student may choose to discontinue formal education at a point that is premature for his/her needs and abilities. Unlike the teacher who is disadvantaged only in professional competence, the effects on the student may be cumulative and have profound effects in many aspects of life.

Those instructional approaches that have most often proven successful are derived from a theoretical base. These approaches tend to be successful because they are based on a set of assumptions that explain the congruence between that which was planned and that which actually happened. Further theory based approaches tend to describe the various steps or elements in the instructional process and how they relate to each other and the learning outcomes. Perhaps most importantly they provide enough specificity so that they can be replicated in various learning situations.

Gagne (1975) suggests several ways that theoretical approaches can be useful in promoting learning.

1. In the planning of lessons and courses, learning principles discios the limits of what is possible in instruction....

2. In the conduct of instruction, a knowledge of learning theory can guide the teacher's course of action....
3. In assessing what has been learned, principles of learning make possible the means of comparing with what they are expected to have learned, (that is, with "objectives") .... (p.21)

He further states that one should avoid false expectations about applications of learning theory to teaching. A knowledge of learning cannot be applied to virtually all teaching activities but instead the act of teaching involved many sources of practical knowledge in addition to principles and theories of learning. The belief that the right learning theory or principle is the "magic key" to teaching is false. "The variety of situations that characterize instruction make it impossible for a theory with general applicability to determine the details of instructional procedures in a constant manner" (p.20).

Thus learning theory is practical and useful when it helps in planning, conducting, and assessing instructinoal outcomes. Theory based approaches to learning however do have their limitations and should not be used as a panacea that works in isolation from the other factors involved in teaching. There are many other factors that determine the success of learning such as motivation, prior to learning and the learning environment. The significance of theory based instructional approaches is that it is one of the few factors teachers are able to control. The others are present or absent in varying degrees yet they too influence the choice of instructional

approaches. Thus the teacher without a knowledge of theory based approaches to instruction exerts no influence over one of the few factors which he/she might. He/she merely reacts to situations rather than influencing or controlling them.

Many times instructional approaches used by adult educators are intuitive and reactive rather than based on theoretical conceptions of learning. Descriptions of learner characteristics have been one of the foundations of instructional approaches developed for adults. A great deal of the literature in the adult education consists of descriptions of adult learners and how they differ from youthful learners (Zahn, 1967), (Knowles, 1970), (Lorge, 1952), (Kidd- 1973), (McClusky, 1979). It is often erroneously inferred from these descriptions that the actual process of learning is different for adults and youth because the learners themselves vary greatly. There are differences in motivations, prior learning, and psychological and physiological characteristics and these are well documented in the literature. There is no evidence however at the present time that adults acquire new behaviors or process information in ways that are different from children or youth.

Theory Based Approaches to Teaching and Learning

The following discussion presents an overview of theory based approaches to learning applied or applicable to adult learning environments. Some were developed for use with children or youth and have been adapted for use with adults. These include the problem solving approach espoused

by John Dewey (1938) and the educational objectives model first described by Ralph Tyler (1950). Kurt Lewin's principles of group dynamics and theory of change are presented as a theory based approach developed for adults and later modified for use with children. There three approaches are summarized from Houle's Design of Education, 1972, p. 10-21. The second section is an overview of learning theories and instrucional approaches from the field of psychology. Descriptions of the theory and implications for adult educators are included in a discussion of selected aspects of behaviorist, cognivist, and humanist theories. The last section of the paper presents some general guidelines for choosing one approach or a combination that is appropriate for a given situation.

Theory Based Approaches Developed for Youth and Applied to Adults

Houle (1972) gives an overview of the more prominent theoretical systems that have provided a basis for designing educational programs in adult education. Houle's purpose is to describe various approaches that are used for designing educational programs. These are presented here because the theroetical assumptions used in designing programs are not unlike those that are used in designing instruction. Both instructional development and program development models are based on assumptions about how changes in behavior occur and how that change can be brought about more effectively. The difference is that program development represents a macro application of the theoretical concepts and instructional development represents a micro application.

In discussion, the educational programming approaches for adults, Houle acknowledges that there are overlaps but that each has a focus that is distinctly its own. His presentation is chronologically orientated in the sense that he gives the primary originator of the theory or movement and then traces its applications to the field of adult education.

Dewey's Problem Solving Approach. John Dewey's pragmatic approach to education had a strong appeal to early adult educators. Dewey believed that education should be related to experience. This idea provided the impetus to expand the concept of schooling beyond institutions designed for that purpose and to include other organizations such as libraries and museums and many forms of activities that could provide various kinds of experiences. Dewey believed goals of learning are never static but change as the learner has new experiences and interactions with the environment. Thus education should be progressive and forward moving if it is to prepare the learner for more and varied experiences in the future.

Dewey defined thinking as a problem solving process in which the problem is defined, solutions are formulated, and the best one is chosen. The notion of a problem solving approach to real life situations was readily accepted by adult educators. Dewey's impact on the field of adult education is evidenced by the acceptence of the notion that the curriculum is built around the students' needs and interests as opposed to the more traditional view in which the curriculum is designed and the student adjusts to it.

Tyler's Identification of Objectives Approach. Ralph Tyler's (1950) Basic Principles of Curriculum and Instruction has been the foundation

of much of theory and practice of modern education. Tyler's concern for educational objectives has provided the impetus for systematic curriculum development and evaluation. Many of the program development models that are in use today are derived directly from his original suggestions. Educational evaluation can also trace its antecedents to Tyler's curriculum and instruction principles.

The first task, according to Tyler, is to determine what educational purposes the school should seek to attain. To accomplish this, information is collected from learners themselves, contemporary life outside the school, and subject matter specialists. This information becomes the basis for educational objectives. These objectives are then compared to philosophical beliefs and learning psychology to determine if they are congruent with the school's mission and feasible in terms of theories of learning. The objectives are then stated in a fashion so that they are useful to the teacher or curriculum builder for selecting appropriate learning experiences that can aid in the attainments of the objectives. The learning experiences are then organized so that they achieve continuity, sequence, and integration within the curriculum. The evaluation is then planned to ascertain the degree to which the objectives have been met. This information is then used in planning future programs.

Tyler's principles have been adapted by many adult educators in planning and evaluating programs of various types. The process of specifying objectives, stating them in a useful form, identifying learning activitiesm and evaluating the outcomes is not limited in its usefullness to one particular type of educational program. Rather it is generic enough to be applied to many educational endeavors

ranging from school programs for youth to a variety of programs for adults. The applicability of Tyler's principles to many situations has made it particularly appropriate for adult education programs. The Cooperative Extension Service has used Tyler's principles as a basis for planning and evaluating the many diverse kinds of programs for adults. The program planning and evaluation models that are used in the Cooperative Extension Service today to a large degree represent modifications of Tyler's original principles.

A Theory Developed for Use with Adults

Lewin's Group Dynamics and Change Theory Approaches. Houle notes that the approaches developed by Dewey and Tyler evolved because of concern for the youthful learner whereas the approaches that were derived from Kurt Lewin "were first used extensively in program building for adults and were only later applied in the schooling of youth." (p.15) Lewin's work is most often identified as group dynamics and change theory and evolved in the field of social psychology rather than education. Both of the approaches below described are derived primarily from Lewin although other people, including his students, contributed to their conception and development.

Group Dynamics. The study of the nature of small groups and their implications for influencing the actions of the group members became known in social psychology as group dymanics. The theoretical concepts of group dynamics found practical applications in various techniques such as role playing buzz groups, listening teams, and many other forms that involved small group activities. Leaders in the field of adult education found many opp-

ortunities for using the concepts and techniques collectively identified as group dynamics. Eventually the group dynamics approach developed a new focus. Rather than being used as a means of studying small group activities, it became a means of creating mroe effective social associations and helping people learn about themselves. It became known as sensitivity training or human relations education. Even though sensitivity training came to be a highly specialized area of adult education, it was not "advocated as being a universal system of planning and analysis. But group dynamics did make a significant, positive, contribution to adult education by stressing the importance of treating every socialized learning situation as a group" (Houle, 1972, pp. 17-18).

Change Theory. The major theme of change theory is that there are two kinds of forces that operate in every social situation to determine the level of accomplishment. One set of forces tend to operate in supporting ways while another set tends to operate in ways which hinder the situation. In using the change theory concept of program design, it is first necessary to determine which factors are supportive so that they can be reinforced and which factors are negative so they can be eliminated or weakened. The change then becomes a process of weakening or strengthening certain factors so that a new level of performance is established. This process is referred to as "unfreezing" which means moving in a positive direction. When a more desirable level of performance is achieved, "refreezing" occurs which means establishing the new performance in such a way that it will not slip back into its past level of performance.

The concepts of change theory have been applied in many fields including educational programming for adults. The person who orchestrates this process

of change is referred to as the change agent. The influence of change theory in adult education has been considerable as evidenced by Verner's (1964) description of the agent learner relationship in his definition of the field.

Theory Based Approaches from Psychology Applied or Applicable to Adult Education

The theories that are discussed below reflect the classification of learning thoeries into behaviorism, cognitivism, and humanism. This classification system was chosen because it reflects divisions within the field of psychology of learning as well as suggesting prominent theorists which espouse the position indicated by the labels within the classification. One or more theorists will be discussed under each heading in very general terms regarding the nature and its subsequent implications for educators planning or delivering instruction for adults.

Behaviorism

Behaviorism is a general classification of those theories that use only observations and concepts relating to observable components of behavior. It excludes references to sensations, feelings, images, and also thinking except when these can be regarded as implicit behavior. B.F. Skinner is the person most responsibible for applying behavioral principles to education. His application of behavioral principles to education, derived from his theory of operant conditioning (1957), has had a profound effect on the planning and design of instruction in many diverse ways. The two major operations of the theory center on stimulus control and reinforcement, which have evolved into several facets of educational application to instructional technology which include the teaching machine, programmed instruction, contingency management, behavioral engineering, abd behavior modification. While there are differences in these instructional

approaches, there are features which appear to be common to the behavioral approaches to education. They are concerned foremost with behavior which are observable and measurable. While the internal experiences are important, they can neither be seen nor measured and therefore do not lend themselves to modification or change. As a result of dealing with observable and measurable behaviors, these approaches imply explicit statements of objectives, and a preplanned evaluation procedure for assessing student's progress toward a given objective.

With regard to adult education, application of behavioral approaches seem to be most appropriate to those learning experiences which require objectives which can be readily stated and evaluated. Adult educators have been slow to adapt behavioristic psychology to their best use. Boshier (1975) suggests that "the principles of behaviorism when translated into educational practice represents a powerful theory, technology, and organizing principle which might be used alongside or as part of the humanistic constructs which currently provide the foundations for the discipline and practice of adult education" (p.17).

Many adult educators have objected to this approach to learning because the objectives, the procedures of obtaining the objectives, and the evaluations have been predetermined by the instructor. This in effect defies one of the major tenets of adult education - that of the uniqueness of the individual in determining what objectives, procedures, and evaluations are suitable for his/her needs. Contrary to this beielf however, behavioral

applications to adult learning situations do not necessarily have to exclude the participation of the individual in the design of the learning experience. Rather than inhibit the student in the achievement of his goals, they offer the possibility of enhancing that achievement by allowing the student to start with the specifications already determined by the instructor. Thus behavioral approaches offer a selection of alternatives rather than an invention of a solution. The deciding factor in using behaviorist approaches to the best advantage in adult education situations rests with the flexibility of the instructor, their knowledge of appropriate applications of behavior technology to educational settings, and the planning that is prerequisite to its successful use.

Cognitivism

Unilke the behaviorists who are concerned with observable, measurable behavior, the cognitivists are psychologists who propose that the mental processess such as thinking, remembering, problem solving, and concept formation provide the most appropriate basis for a theory of learning. In the cognitivist's view, the student is more than simply a respondent seeking a predetermined correct reply or action in exchange for reinforcement. He is an active participant in the learning situation through his own cognitive process. Options and alternative strategies are available and are limited only from eithin the cognitive structure of the learner rather than from preset boundaries. There are a number of learning psychologists who are properly classified as cognitivists. Perhaps the best known cognitivists who have influenced educators are Jerome Bruner and David Ausubel.

Jerome Bruner. Jerome Bruner (1956, 1966) is perhaps the best known for his view of education that emphasizes discovery learning and the importance of categorization in the learning process. A description of categorization and its relevance to human learning is summarized below. Categorization relies on the use of concepts and permits the recognition of objects that may be either familiar or unfamiliar. Thus it reduces the need for constant relearning and also allows the individual to go beyond the information given in the use of comparisons and similarities. The use of categories that relate objects and classes of events reduces the complexity of the individual's environment and implies which behavior is appropriate in certain situations. Finally categorization aids the memory process and facilitates the transfer of learning (Le Francois, 1972, pp. 117-118).

The use of concepts and the process of categorization is important in discovery learning. Rather than being shown or directed by the teacher, the student is expected to discover through the use of his cognitive processes the information to be learned or the problem to be solved. In Bruner's (1961) view, there are four advantages to discovery learning. (1) The learner will be able to increase his problem-solving abilities in discovering for himself how to aquire information. (2) Through the act of discovering the learner will become internally motivated through his own competence. (3) Having experienced discovery the learner will be better able to use this approach in the future. (4) Discovery learning increases retention of material learned and aids retrieval from memory. The application of Bruner's discovery learning and process of catergorization into specific models for teaching

adults has not been done. Rather these two processes occur naturally as evidenced by Tough's (1971) research on the learning projects of adults.

David Ausubel. Ausubel (1963) like Bruner, is another psychologist who focuses on the cognitive processes to explain learning. In contrast to Bruner however, Ausubel advocates expository learning over discovery learning. Ausubel suggests that discovery learning may be appropriate in some situations but that it is too impractical and time consuming for many learning situations.

The principle of subsumption characterizes Ausubel's approach to learning. He believes that each discipline is composed of a structure of concepts that is organized hierarchically. Those concepts at the top of the hierarchy will subsume those that are less inclusive and at a lower level of abstraction. Thus, the more elementary concepts are at the bottom of the hierarchy. At progressively higher levels within the hierarchy, the concepts become more abstract and more inclusive. Ausubel and Bruner agree "that the structural concepts of each discipline can be identified and taught to the students and they then become an information processing system for him; an intellectual map which can be used to analyze particular domains and to solve problems within those domains of activities" (Joyce and Weil, 1972, p. 166).

The advance organizer illustrates a practical application of Ausubel's theory concerning the hierarchical organization of concepts with the various disciplines. An organizer is a presentation of material to be learned at a level of greater "abstraction, genrality, and inclusiveness" than the

material to which it refers (Ausubel, 1963, p.81). Its purpose is to organize the material to be learned so that it can be related to that knowledge which is already possessed by the learner. The advance organizer is especially useful in presenting written or verbal material. It provides a bridge between the existing cognitive structure and that which is to be learned.

Humanism

Humanistic psychology is concerned with the whole person rather than components of his behavior or his cognitive structure. Humanism is concerned with the worth of the individual and those processes that are considered to make him more human. The humanistic approach to education assumes that: (1) An individual strives to realize his potential, i.e., to self-actualize; and (2) An individual chooses to handle his own life situations in ways that are constructive and unique to him. Carl Rogers was one of the pioneers of the humanistic movement in education with Client Centered Therapy (1951) and Freedom to Learn (1969).

Rogers stresses the importance of the student's involvement with the learning process. He assumes that experiential learning is possible only to the extent that the student is included as a major decision maker in the learning facilitator. In this role one of the major responsibilities of the teacher is to create a climate conducive to intellectual and emotional growth.

The humanistic approach to learning has been accepted overwhelmingly by adult educators. It is particularly appropriate in view of the characteristics of adult learners. Andragogy, defined as the art and science

of helping adults learn, is based on assumptions about the characteristics of adult learners which reflect the pronounced influence of humanistic thought.

In addition to being the basis for assumptions about androgogy, Roger's humanistic philosophy has been applied in some very practical ways to educational environments. Learning contracts and facilitator learning groups are techniques that are used extensively in adult education. The use of learning contracts provide a basis for mutual agreement between the student and the teadher concerning the amount of work done, the time for doing it and the means by which it is to be done. In short it is a contract between the student and the teacher in which the student has some choice concerning the options available to him.

A description of the characteristics of adult learners becomes the basis of Knowles' (1975) contract learning approach. He describes the adult learner generally as being independent and self-directing, experienced in ways that provide a resource for learning, oriented to learning based on his/her particular developmental tasks, and problem centered rather than subject centered. (Knowles, 1970, p.39) He formalizes the learning project into a set of procedures whereby the learner selects the objectives, the activities to fulfill the objectives, and the means whereby those objectives are evaluated. Unlike Tough's (1971) learning projects, a teacher or instructor is present and is described by Knowles as the facilitator of learning who helps the student in each stage of the learning contract. Knowles'

learning contracts are similar to the instructional modules that evolved from the competency or performance-based education movement of the 1960's. The processes are similar in that the learner's independence and individual needs are considered. They differ primarily in that the competency based modules are prepared by the subject matter specialists, and Knowles' learning contracts are prepared by the learner with the help of the facilitator.

Choosing an Approach for Teaching Adults

Houle's (1972) discussion of Dewey, Tyler and Lewin represents theoretical approaches to planning educational programs. They may also be thought of as approaches to learning since they are used as a basis for planning the learning activities and rest on certain assumptions about educational purposes and the roles of the participants. The theories of learning presented under the categories of behaviorism, cognitivism and humanism, in sontrast to theoretical approaches to designing educational programs. describe a process for learning based on assumptions about how learning occurs. While both the programming approaches and the learning theories leave many questions unanswered their significance lies in their implications for teaching or planning the leraning activity. There is a close relationship between learning theories, theoretical approaches to educational programming and the instructional process. The theory or approach should suggest a framework for the subsequent instruction. Bruner (1966) suggests how a theory of learning provides

such a framework: (1) The theory should specify experiences which most effectively foster a favorable predisposition toward learning generally and toward a particular educational topic at hand. (2) It should indicate how to structure the body of knowledge so that the student can readily learn and use it. (3) It should specify optimal sequences in which to put present learning experiences.

Few theoretical approaches would do all that Bruner proposes. In some instances the approaches are so different that very few commonalities can be identified for comparison. Even with this limitation it is particularly important that teachers of adults be knowledgeable of theoretical approaches and their implications for adult educational setting. As learners, adults tend to exhibit wide variations in those factors that imply a given instructional approach, i.e. motivation for learning, educational competence, and self-knowledge regarding abilities and goals. Figure 1 represents an attempt to classify some of those variables in terms of the theoretical approaches to learning discussed in this paper. The model depicted in Figure 1 represents a synthesis of Apps (1973) and Joyce and Weil (1972). The first three factors are derived from Apps (pp.44-77). The last two factors are taken from Joyce and Weil (pp.14-16).

Insert Figure 1 about here

Factors Affecting Choice of a Theoretical Approach

A number of factors must be considered by the adult educator when selecting a theoretical approach as a basis for instruction or when adapting an instructional strategy.

The Purpose of Learning. The adult educator must ascertain the purpose of learning in which the learner has evidenced a desire to engage. For example the purpose may vary from solving a particular problem to acquiring content skills to improving human relations. The purposes for learning shown in figure 1 are not necessarily parallel in that some imply a programming approach and others imply an instructional approach. They are suggested as guidelines for the adult educator in selecting various alternative strategies that may be employed since the purposes of learning among adult clients will vary considerably.

Ascertaining the purpose for learning is similar to identification of goals. Both represent a broad statement of intent and the first os a series of steps that serve to give order to the sequences of events that follow. Thus the purpose for learning may be viewed as goals from which several levels of objectives may be derived and activities identified to fit the nature of particular objectives. For example, Houle's (1961) classification of adult learners may be viewed as representing different purposes or goals. He identified three types of learners, the activity orientated, the goal orientated, and the learning orientated. Each type comes to the adult education activity with a different purpose.

Occasionally the purpose of the learning suggests a particular model of teaching desifned for that specific purpose. Synetics, a method designed by Gordon (1961), is an approach to the development of creativity

in individuals and groups. It was originally developed for use in industrial settings to foster problem solving and product development. Lately its use has been extended to classroom application. A model to increase human awareness has been devised by Schutz (1958) to help people develop in their potential for improving interpersonal relationships. Most often however identification of the purpose for learning does not suggest a particular model; it merely represents the first step in narrowing the list of options.

The Roles of the Teacher and the Learner. The transaction between the teacher and the learner is the second factor to be considered. Transaction in this sense refers to the role that each will assume in pursuit of the desired goal. Often the purpose of the learning will suggest what the nature of this transaction will be. For example, if the purpose is to acquire content or skills with which the learner is unfamiliar, the teacher's role may be directive. On the other hand, if the purpose of the learning is to increase self-awareness or to self-actualize, the teacher may be non-directive or facilitating in nature. In other instances, the teacher learner transaction may be more of a peer relationship as in the problem solving or change theory approaches.

In brief, there is a direct relationship between the role of the teacher and the role of the learner. The more dependent the role of the learner, the more directive the role of the teacher. As the role of the

learner becomes more independent, the teacher becomes less directive. This relationship of teacher/learner roles is shown in Figure 2. The role of the learner may be related to the purpose of learning, or it may be independent of that factor and relate to variables such as prior learning or educational level of the learner. It should not be assumed that learner roles represent constant variables that do not change from one end of the continuum to the other, i.e. progress from dependent to independent. Nor should it be assumed that each individual learner is always in the same role. For example, a learner may be very dependent in a psychmotor skill but very independent in the ability to deal with abstract subject matter disciplines.

Insert Figure 2 about here

From the diagram is it clear that the teacher adapts his/her role from that taken or assumed by the learner. However, the teacher roles may vary along the continuum just as the learner roles do. The teacher who assumes one role consistently is not likely to reach learners who are at other points on the continuum. Situations in which all adult learners are at the same level or independence or competence are rare.

Social System. The social system describes the amount of structure in the learning environment. Structure implies the leadership or authority relationships between student and teacher as well as the initiator of activities

Supportive Activities. Supportive activities describe the conditions necessary to create the environment impied by the theoretical approach. Included in this category would be resources such as books, physical facilities, learning conditions, enviromental factors, experience of participants, etc.

There may be other factors that affect the choice of a particular learning theory or teaching model, and it is not suggested that the factors identified and examined above completely exhaust the possibilities. Examples of these other factors include those recommended by Knowles (1973) when working with human resources development in government and industry. He recommends that the proposed theory fit the organization's management philosophy and long range development plans.

Conclusion

There is not one specific theory or approach that fits every situation, subject matter, and client group. Adults as learners represent diverse populations with many needs, interests and characteristics. Given this reality the adult educator should consider the options of theory based approaches that are available and choose one or a combination of several for an appropriate theoretical foundation to planning the learning activities. The adult educator cannot effectively rely on one theory or approach but must instead have a repertoire from which he/she can choose. The choice of a theory based instructional approach involves the identification of the variables that influence each situation The adult educator is urged to consider those listed above and to develop others that apply to his/her particular situations.

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Figure Caption

Figure 1. Approaches to learning and factors affecting their choice.

Figure 2. Reltionship of teacher learner roles.

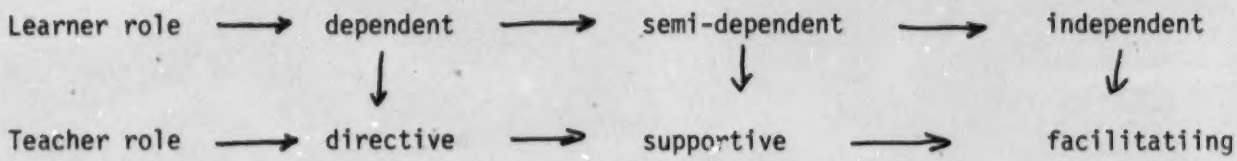

Figure 2. Relationship of teacher learner roles